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Comptroller General
of the United States

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Decision

Matter of: INRAD, Inc.

File: B-284021

Date: February 4, 2000

Warren Ruderman for the protester.
Thomas C. Papson, Esq., and Richard P. Castiglia, Jr., Esq., McKenna & Cuneo, for Sanders, A Lockheed Martin Company, an intervenor.
Deborah Muldoon, Esq., Department of the Air Force, for the agency.
David A. Ashen, Esq., and John M. Melody, Esq., Office of the General Counsel, GAO, participated in the preparation of the decision.

DIGEST

Agency's decision not to fund protester's proposal in response to Program Research and Development Announcement (PRDA) for furthering development of nonlinear optical crystals was unobjectionable where decision was consistent with terms of the PRDA and did not violate applicable statutes or regulations; rather, record shows decision was based principally on fact that, while PRDA called for an approach feasible for advanced development, as demonstrated by offeror's prior research or exploratory development, protester instead proposed a technique that had not been applied to its proposed crystal material.

DECISION

INRAD, Inc. protests the Department of the Air Force's rejection of its proposal submitted under Program Research and Development Announcement (PRDA) No. 99-2-MLK, for Advanced Development of Far-Infrared Conversion Materials. INRAD maintains that the Air Force improperly evaluated proposals and alleges bad faith on the part of contracting officials.

We deny the protest.

The PRDA, synopsized in the Commerce Business Daily (CBD) on May 10, 1999, stated that the Air Force Research Laboratory, Materials and Manufacturing Directorate, was soliciting research and development proposals for the purpose of furthering development of nonlinear optical (NLO) crystals for utilization in optical parametric oscillators, second harmonic generators, and other wavelength

conversion devices, the applications for which include infrared countermeasures for protecting aircraft and standoff detection for chemical and biological defense.¹ The PRDA cautioned that

[m]aterial candidates that are proposed under this solicitation must have been previously investigated such that the Air Force can be reasonably certain of the candidate's potential for meeting the program requirements. The successful offeror must demonstrate a clear understanding of the materials problems and propose an approach demonstrated by the offeror to be feasible for advanced development by the offeror's prior research or exploratory development. Possible candidates include, but are not limited to, cadmium germanium arsenide, gallium selenide, and silver gallium indium selenide.

PRDA § A.1. The contractor is to "conduct research and develop processes that increase the NLO crystals' size, improve the optical quality of the crystals' bulk and surfaces, and better the reliability of the materials' growth and processing techniques." Id.

The PRDA provided for proposals to be evaluated based on technical aspect, ranked first in priority, and cost, ranked second. The technical aspect factor included the following four subfactors (of equal importance): (1) the offeror shall propose an approach demonstrated by the offeror to be feasible for advanced development; (2) the proposal shall demonstrate a clear and thorough understanding of the problem; (3) the proposal shall demonstrate that the personnel and principal investigator are technically qualified to perform the work; and (4) the proposal shall demonstrate how the equipment and facilities necessary to run the program will be utilized by the offeror. PRDA § D.

Under the evaluation procedures for PRDAs, proposals are evaluated and ranked for technical merit as Category I, Category II, or Category III. AFMC FAR Supp. §§ 5335.016-90(d), 5335.9003(b). Proposals in Category I are well conceived, scientifically and technically sound, and pertinent to the program goals and objectives; such proposals are the most highly rated and are recommended for acceptance. Category II proposals are scientifically or technically sound proposals, but require further development; they may be recommended for acceptance, but have a lower priority than Category I proposals. Category III proposals are not technically sound or do not meet agency needs, and are rejected. AFMC FAR Supp. § 5335.016-90(d).

¹ A PRDA is a publication in the CBD of a requiring activity's "interest in new and creative research or development solutions to scientific or engineering problems." Air Force Materiel Command Federal Acquisition Regulation Supplement (AFMC FAR Supp.) § 5335.9001.

The Air Force received and evaluated three proposals. One proposal, submitted by Sanders, A Lockheed Martin Company, was rated as Category I and was recommended for funding. A second proposal was rated as Category III. The third proposal, submitted by INRAD, was rated as Category II. Although the Air Force determined that INRAD had proposed “a very good overall approach” which had value, the agency considered the proposal to be high risk and determined that funds were not currently available to fund INRAD’s proposed effort. Agency Report, Tab 10, Technical Evaluation at 1 and attach. 2, at 1.

INRAD challenges the agency’s determination that its proposed effort is high risk, and concludes that its proposal should have been funded.

We have accorded agencies substantial discretion in determining which proposals to fund under experimental and creative procurement programs where, as under the PRDA program, see AFMC FAR Supp. § 5335.9001, the agencies’ requirements are based, not on design or performance specifications for existing equipment, but on new and creative research or development solutions to scientific or engineering problems. See I.S. Grupe, Inc., B-278839, Mar. 20, 1998, 98-1 CPD ¶ 86 at 3 (Small Business Innovation Research (SBIR) procurement); but cf. Energy and Envtl. Research Corp., B-261422, B-261422.2, Aug. 23, 1995, 95-2 CPD ¶ 81 at 4 (PRDA award reviewed for reasonableness). Accordingly, it is our view that the Air Force had substantial discretion in deciding which proposal to fund under the PRDA in issue here. Where an agency has such discretion, we limit our review to determining whether the agency violated any applicable statute, regulation, or solicitation provision, or acted in bad faith. Cf. Virginia Accelerators Corp., B-271066, May 20, 1996, 97-2 CPD ¶ 13 at 2 (SBIR procurement).

The agency’s determination not to fund INRAD’s proposal was consistent with the PRDA, and we find no violation of applicable statutes or regulations. INRAD proposed to develop cadmium germanium arsenide, so as to make possible industrial-scale production of high optical-quality, large and uniform single crystals with reduced optical absorption. Agency Report, Tab 6, INRAD Technical Proposal, at 5. Although the Air Force viewed cadmium germanium arsenide as appropriate for advanced development, it noted that two issues must be addressed with this material: (1) the offeror must improve the homogeneity of the material so as to avoid such problems as poor optical transparency, and (2) the offeror must minimize the effects of various types of crystal point defects that lead to poor optical transparency. Agency Report, Tab 10, Technical Evaluation, attach. 2, at 1. Recognizing the “serious problem . . . [of] severe electrical and optical nonuniformity of [cadmium germanium arsenide] crystals,” Agency Report, Tab 6, INRAD Technical Proposal, at 4, INRAD proposed to investigate two solutions that the agency evaluated as increasing the risk of its proposed effort.

In evaluating whether INRAD had proposed an approach demonstrated by the offeror to be feasible for advanced development, one of the technical evaluation subfactors, the Air Force characterized as high risk INRAD's proposal to solve the problem of poor homogeneity in cadmium germanium arsenide crystals by [DELETED]. The Air Force recognized that the approach had proven useful with certain other semiconductor crystals, but considered it as high risk here because (to the agency's knowledge) it had never been applied to cadmium germanium arsenide crystals or to any closely-related crystals. In addition, the agency was concerned that the use of [DELETED] could seriously complicate [DELETED]. Agency Report, Tab 10, Technical Evaluation, attach. 2, and Tab 13, Debriefing Agenda, at 9.

INRAD claims that good results have been achieved [DELETED] and that its approach addresses the agency's concerns with respect to [DELETED]. However, INRAD does not deny that the technique has not been applied to cadmium germanium arsenide crystals, and the president of INRAD concedes that he does not know how much of an improvement in homogeneity can be expected from applying the technique to cadmium germanium arsenide crystals. Protest at 2. Given that the PRDA required "an approach demonstrated by the offeror to be feasible for advanced development by the offeror's prior research or exploratory development," PRDA § A.1, the agency's conclusion that INRAD's approach was high risk was consistent with the PRDA and otherwise unobjectionable.

The Air Force characterized as an overall medium risk INRAD's proposal to compensate for crystal point defects in cadmium germanium arsenide crystals primarily by irradiating the crystals with fast electrons. In this regard, INRAD's proposal stated that "[i]n order to be optically transparent, [cadmium germanium arsenide] crystals must be electrically compensated. As a main type of compensation we will use irradiation with fast electrons. We will also explore annealing/quenching and doping." INRAD Technical Proposal at 41. The agency recognized that INRAD had shown that fast electron irradiation improves the transparency of cadmium germanium arsenide crystals. However, the agency determined that thermal annealing would be required to eliminate undesired side effects of radiation; the agency was concerned that low temperature annealing could eliminate the beneficial effects of irradiation and it noted that INRAD itself had indicated that the results with high temperature annealing were inconsistent and confusing.² *Id.* at 22. According to the evaluation, the risk associated with irradiation itself was high, but in light of the additional, secondary approaches

² The Air Force also expressed concern that the temperatures required for antireflection coating deposition would be sufficiently high to anneal out some of the beneficial effects of irradiation. Agency Report, Tab 10, Technical Evaluation, attach. 2, at 2. While INRAD claims to have demonstrated the low-temperature application of antireflection coating, this does not show that the agency's overall concern with thermal annealing was misplaced.

(annealing and quenching, and doping) proposed by INRAD to compensate for crystal point defects, the agency concluded that the overall risk in this regard was only “moderate” or “moderately high.” Agency Report, Tab 10, Technical Evaluation, attach. 2, at 2, and Tab 13, Debriefing Agenda, at 7-8, 10.

INRAD argues in its comments on the agency report that it simply proposed to study the effects of annealing on cadmium germanium arsenide crystals; the protester claims that it indicated in its proposal that it would use it only if a positive result were observed. INRAD Comments, Dec. 10, 1999, at 2. However, INRAD’s argument ignores the agency’s finding that--INRAD’s commitment aside--thermal annealing would be required in order to eliminate undesired side effects of irradiation. The agency’s conclusion thus has not been shown to be inconsistent with the PRDA, and it is not otherwise objectionable.³

In addition, the Air Force assigned a weakness to INRAD’s proposal under the technical evaluation subfactor with respect to whether the proposal demonstrated how the equipment and facilities necessary to run the program will be utilized by the offeror. Specifically, the agency concluded that the risk associated with INRAD’s proposed effort was increased by the following: (1) INRAD lacked a number of critical pieces of equipment that it would have to acquire; and (2) INRAD, located in New Jersey, had proposed a California subcontractor for laser testing and characterization--this could hamper close interaction between the subcontractor and INRAD’s researchers and thus increase technical and schedule risk--and had failed to describe the subcontractor’s equipment and facilities in the proposal. INRAD contends that it has previously successfully conducted research in conjunction with west coast organizations, and that the agency was familiar with its proposed subcontractor’s equipment. Even if INRAD is correct, however, the agency’s determination--that the necessity for INRAD to obtain a number of additional, critical pieces of equipment, and the distance between it and a critical subcontractor, increased the risk associated with INRAD’s proposed effort--was not inconsistent with the PRDA and was not otherwise objectionable.

INRAD alleges that the Air Force Research Laboratory has demonstrated a history of bias in favor of Sanders, as evidenced by several prior awards to Sanders. However, a history of awards to a competitor in no way demonstrates improper bias by an

³ Although INRAD in its initial protest also generally asserted that thermal annealing was not required in order to eliminate undesired side effects of radiation in cadmium germanium arsenide, INRAD Protest at 3, INRAD has offered no evidence to refute the agency’s determination to the contrary and, indeed, has not argued this point in its comments on the agency report. Rather, INRAD asserts in its comments only that it had obtained favorable results with a different material than cadmium germanium arsenide “as a result of a combination of irradiation with pre- and post-irradiation annealing.” INRAD Comments at 2.

agency. See J. A. Jones Grupo de Servicios, SA, B-283234, Oct. 25, 1999, 99-2 CPD ¶ 40 at 5 (allegation of agency bias must be supported by credible evidence showing both the alleged bias, and that any bias translated into action that unfairly affected protester's competitive position); Dynamic Aviation--Helicopters, B-274122, Nov. 1, 1996, 96-2 CPD ¶ 166 at 4.

The protest is denied.

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